

REMARKS

The only issues outstanding in the Office Action mailed October 1, 2007, are the rejections under the doctrine of obviousness-type double patenting, and 35 U.S.C. 103. Reconsideration of these issues, in view of the following discussion, is respectfully requested.

35 U.S.C. 103

Claims 1-11 and 13-14 have been rejected under 35 U.S.C. 103 over Schmidt, WO 99/20695 (equivalent to U.S. Patent 6,596,070). Reconsideration of this rejection is respectfully requested. For purposes of convenience, the disclosure of the '070 patent will be referred to in the following discussion.

As will be recalled, Schmidt discloses interference pigments on the basis of multiply coated, platelet-shaped substrates, which comprise at least one layer sequence comprising:

- (A) a coating having a refractive index $n \geq 2.0$,
- (B) a colorless coating having a refractive index $n \geq 1.8$, and
- (C) a nonabsorbing coating of high refractive index, and, if desired,
- (D) an external protective layer.

Patentees disclose, moreover, a particularly preferred embodiment that is the coating of the substrate with the following layer assembly:

- (S1) optional, SnO_2
- (A) TiO_2 or Fe_2O_3
- (B) SiO_2
- (B1) optional, SnO_2
- (C) TiO_2
- (D) Final coating related to application

Patentees further teach, at column 2, at lines 55-63, that "suitable base substrates" for the pigments are "firstly opaque and secondly transparent" platelet-shaped substrates.

This disclosure is followed by a list of both transparent and opaque materials.

The examples of '070 disclose mica as the substrate, with Examples 1 and 2 being four

layer coatings, with iron as a first layer, Example 3 contains an iron-containing (thus, colored) layer, Example 5 also contains such a layer and Example 6 contains two such iron-containing layers. Thus, no example suggests the present claims, which recite a five layer sequence having, as the third layer, a colorless coating, and moreover, having two layers of titanium dioxide in rutile modification. Even in the “preferred embodiment” at column 4 of the patent (to the extent that one of ordinary skill in the art on viewing the disclosure of “TiO₂” would envision rutile from among other modifications, a point which applicants do not concede) does not disclose that the substrate is *directly* coated with this layer sequence, nor is it disclosed that the substrate is transparent and colorless. Accordingly, one of ordinary skill in the art not only has to choose titanium dioxide for layer (A), but has to choose rutile modification for layers (A) and (C), must choose a transparent and colorless substrate from among the opaque and colored substrates listed as noted above, and must apply this sequence directly to that substrate without an intermediate layer, and judicially select thickness values from the broad disclosure of the reference (although it is noted that the “interlayers” in the reference are not shown as having values below 1 nm, contrary to the 0.5 nm values at the bottom of the range in the present claims).

It is maintained that the selection of thicknesses, and direct application of at least one layer sequence to the transparent and colorless results in pigments having significantly increased brightness, greater luster, a more pronounced color flop and higher stability compared to the referenced pigments. As a result, the submitted pigments of the reference do not suggest the present claims, and withdrawal of the rejection is respectfully requested.

Double Patenting

Inasmuch as the double patenting rejection is over the ‘070 patent, discussed above, it is submitted that this rejection should also be withdrawn for the reasons stated above.

The claims of the application are submitted to be in condition for allowance. However, if the Examiner has any questions or comments, he is cordially invited to telephone the undersigned at the number below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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